

## General Studies Request Form

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Please see the [General Studies Request Overview and FAQ](#) for information and quick answers.

New permanent numbered courses must be submitted to the workflow in [Kuali CM](#) before a General Studies request is submitted here. The General Studies Council will not review requests ahead of a new course proposal being reviewed by the Senate.

### Proposal Contact Information

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Submitter Name	Submitter Email	Submitter Phone Number
Becca Dial	bdial@asu.edu	480-965-2213

College/School	Department/School
The College of Liberal Arts and Sciences (CLA)	School of Earth and Space Exploration (CEARTH&SPX)

### Submission Information

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Type of submission:

Mandatory Review (Course or topic currently holds this designation and is undergoing 5-year review)

#### What is Mandatory Review?

Courses and topics previously approved for General Studies must be reviewed every five years by the General Studies Council to verify requirements are still met.

### ASU Request

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Is this request for a permanent course or a topic?

Permanent Course

Subject Code	Course Number	Units/Credit Hours
GLG	102	3.0

#### Course Information

Courses approved for General Studies require mandatory review every five years.

Course Title

Introduction To Geology II (Historical)

Course Catalog Description

Basic principles of applied geology and the use of these principles in the interpretation of geologic history. Both GLG 102 and 104 must be taken to secure SG General Studies credit.

Is this a crosslisted course?

No

Is this course offered by another academic unit?

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No

## General Studies

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### Requested Designation

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H - Historical Awareness

H: Historical Awareness

#### **Rationale and Objectives**

Recent trends in higher education have called for the creation and development of historical consciousness in undergraduates now and in the future. History studies the growth and development of human society from a number of perspectives such as—political, social, economic and/or cultural. From one perspective, historical awareness is a valuable aid in the analysis of present-day problems because historical forces and traditions have created modern life and lie just beneath its surface. From a second perspective, the historical past is an indispensable source of identity and of values, which facilitate social harmony and cooperative effort. Along with this observation, it should be noted that historical study can produce intercultural understanding by tracing cultural differences to their origins in the past. A third perspective on the need for historical awareness is that knowledge of history helps us to learn from the past to make better, more well-informed decisions in the present and the future.

The requirement of a course that is historical in method and content presumes that "history" designates a sequence of past events or a narrative whose intent or effect is to represent both the relationship between events and change over time. The requirement also presumes that these are human events and that history includes all that has been felt, thought, imagined, said, and done by human beings. The opportunities for nurturing historical consciousness are nearly unlimited. History is present in the languages, art, music, literatures, philosophy, religion, and the natural sciences, as well as in the social science traditionally called History.

The justifications for how the course fits each of the criteria need to be clear both in the application tables and the course materials. The Historical Awareness designation requires consistent analysis of the broader historical context of past events and persons, of cause and effect, and of change over time. Providing intermittent, anecdotal historical context of people and events usually will not suffice to meet the Historical Awareness criteria. A Historical Awareness course will instead embed systematic historical analysis in the core of the syllabus, including readings and assignments. For courses focusing on the history of a field of study, the applicant needs to show both how the field of study is affected by political, social, economic, and/or cultural conditions **and** how political, social, economic, and/or cultural conditions are affected by the field of study.

[Revised October 2015]

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Note: The following are **not** acceptable submissions for the "H" designation:

1. Courses that are merely organized chronologically.
2. Courses which are exclusively the history of a field of study or of a field of artistic or professional endeavor.
3. Courses whose subject areas merely occurred in the past.

#### "H" Criteria 1

History is a major focus of the course.

Identify the submitted documentation that provides evidence.

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See attached syllabus and other documentation.

How does this course meet the spirit of this criteria?

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This course explores the process of science and the history of the earth. To explain the history of the earth, and how we decipher that, the course covers the materials and general processes that occur within the earth, both at depth and on the surface. Most of the course is concerned with the history of geologic events and life, including evolution, from the earliest history 4.5 billion year formation of the Earth to present day. Students have major readings and assignments on each of the four main chapters of Earth's history (Precambrian, Paleozoic, Mesozoic, Cenozoic). These topics are approached in an historical framework from oldest to youngest. For each chapter, the students have assignments on the main geologic events, the main developments of life as recorded by the fossil record, and mineral resources that were formed or as specific to that geologic time period. The textbook features sections on inferring historical geologic events (EES 4.1), fossils (EES 4.4, 4.5), evidence for the age of the earth (EES 4.7), and how the earth changed over time (EES 4.8 through 4.11).

Please provide detailed evidence of how this course meets this criteria (i.e. where in the syllabus or other course materials).

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See the syllabus and Exploring Earth Science, 3rd edition 4.1, 4.4, 4.5, 4.7, 4.8 through 4.11

### "H" Criteria 2

The course examines and explains human development as a sequence of events influenced by a variety of factors.

Identify the submitted documentation that provides evidence.

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See attached syllabus and other documentation.

How does this course meet the spirit of this criteria?

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The course thoroughly explores the classification of organisms, including the place of humans within that classification. The first appearance of humans is discussed in the textbook (EES 4.1) and elsewhere in the textbook with regards to how humans interact with their environment (EES 1.6). There are discussions of how natural events affect humans and how an earlier event can affect or cause later events, such as drought leading to wild fires leading to debris flows (EES 1.16). The students also complete an investigation where they interpret how earth processes are affecting people who live there and that interpretation requires interpreting historical events, such as recent volcanic eruptions, an active earthquake fault, and development of a river with its associated soils. The course is filled with examples of how geologic events affected humans, such as the eruption of Krakatoa in 1883 (EES 6.5), Mount Unzen in 1991 (EES 6.7), Mount St. Helens in 1980 (EES 6.8), and Santorini in early Mediterranean history (EES 6.9). The course also addresses historical earthquakes, including the Sumatran earthquake and associated tsunami of 2004 (EES 7.0), recent earthquakes that occurred in Japan, Haiti, and New Zealand (EES 7.12), and historical earthquakes that affected various parts of the United States (EES 7.13, 7.14).

Please provide detailed evidence of how this course meets this criteria (i.e. where in the syllabus or other course materials).

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Exploring Earth Science, 3rd edition 4.1, 1.6, 1.16, 6.5, 6.7, 6.8, 6.9, 7.0, 7.12, 7.13, 7.14

### "H" Criteria 3

There is a disciplined systematic examination of human institutions as they change over time.

Identify the submitted documentation that provides evidence.

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See attached syllabus and other documentation.

How does this course meet the spirit of this criteria?

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The course discusses historical development of the geologic community and the science of geology, such as the remarkable insight gained by James Hutton in 1788 (EES 4.0). The textbook also discusses how new technologies, such as surveying, chemical measurements, and high-pressure experiments have revolutionized our understanding of many geologic issues. The course extensively discusses how our understanding of the age of the earth has changed, from the earliest estimations to our modern understanding based on precise geochronology (EES 4.7). The course also addresses how we develop a comprehensive theory from observations and other inferences (EES 1.15). The textbook also discusses how we use minerals in our modern society as well as how they were used by ancient peoples, such as in the use of iron oxide in prehistoric cave paintings (EES 2.15). There is also a discussion of whether a species survives or becomes extinct, which has implications for our current environment (EES 4.5).

Please provide detailed evidence of how this course meets this criteria (i.e. where in the syllabus or other course materials).

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Exploring Earth Science, 3rd edition 4.0, 4.7, 1.15, 2.15, 4.5

#### "H" Criteria 4

The course examines the relationship among events, ideas, and artifacts and the broad social, political and economic context.

Identify the submitted documentation that provides evidence.

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See attached syllabus and other documentation.

How does this course meet the spirit of this criteria?

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Humans and geologic processes have a close, interwoven relationship from habitability, resources, and natural hazards. The textbook used in this course is full of such examples, including the first topical two-page spread in the book, which explains how features and processes affect where and how we live (EES 1.1). The textbook approaches much of science from a systems perspective, including the four spheres of earth (atmosphere, biosphere, hydrosphere, lithosphere), system inputs, responses and feedbacks, and how these processes affect humans and other organisms in the biosphere (EES 1.4 through 1.6). There are many examples of the linkage between humans, resources, and hazards, such as drought and debris flows (EES 1.16), and the materials used in construction, technology, and medicine (EES 2.15). The students complete an investigation where they identify minerals and propose how these could be used to build various components of a house (EES 2.16). In another investigation, students evaluate the tectonic setting of a hypothetical ocean with flanking continents, and consider geologic factors to decide where is the safest place to live (EES 5.16). The textbook also has a discussion about the difference between a hazard and risk to human society (EES 6.5). Volcanic eruptions are discussed in terms of their historical impact on nearby and distant communities, such as the eruption of Krakatau in 1883 (EES 6.5) and the eruption of Santorini, that perhaps lead to the downfall of Minoan civilization on the Island of Crete (EES 6.9). For each of the main types of geologic hazards, there is a discussion about potential dangers, such as Mount Rainier and other volcanoes of the Cascades (EES 6.14), and earthquakes along the Pacific Ring of Fire and along the southern edge of Eurasia (EES 7.8). The effects of earthquakes on human structures and habitats are discussed in several places (7.11 through 7.14).

Please provide detailed evidence of how this course meets this criteria (i.e. where in the syllabus or other course materials).

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Exploring Earth Science 3rd edition 1.1, 1.4 through 1.6, 1.16, 2.15, 2.16, 5.16, 6.5, 6.9, 6.14, 7.8, 7.11 through 7.14)

Attach a sample syllabus for this course or topic, including the list of any required readings.

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[GLG102\\_syllabus\\_general\\_v3.pdf](#)

Attach the table of contents from any required textbook(s).

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[EES\\_GLG102\\_H\\_combined.pdf](#)

Attach any other materials that would be relevant or helpful in the review of this request.

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No Response

## Form Submission - Proposer

Submitted for Approval | Proposer

Rebecca Dial - February 13, 2023 at 1:27 PM (America/Phoenix)

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## Department Approval

Approved

Kelin Whipple - February 14, 2023 at 10:18 AM (America/Phoenix)

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## Provost's Office Review

Approved

April Randall

Joni Lochtefeld - February 15, 2023 at 2:29 PM (America/Phoenix)

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## Historical Awareness Mandatory Review

Acknowledgement Requested

David Corlett

Matt Simonton - February 28, 2023 at 8:07 AM (America/Phoenix)

The instructor makes a good case for how historical content appears throughout the course. However, as the instructor states, "This course explores the process of science and the history of the earth. To explain the history of the earth, and how we decipher that, the course covers the materials and general processes that occur within the earth, both at depth and on the surface. Most of the course is concerned with the history of geologic events and life, including evolution, from the earliest history 4.5-billion-year formation of the Earth to present." Yes, the course does look at how geology has impacted humans, and it also discusses the "historical development of the geologic community and the science of geology." However, humans make up such a small part of the geologic history that I have a hard time aligning it with our disciplinary standards. Historical geology isn't the same, I think, as human history. Revise and resubmit.

Evan Berry

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## General Studies Council Meeting

Waiting for Approval

April Randall

Joni Lochtefeld

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## Proposer Notification

Notification

Rebecca Dial

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